LED Matrix Sheet

"L"shaped run

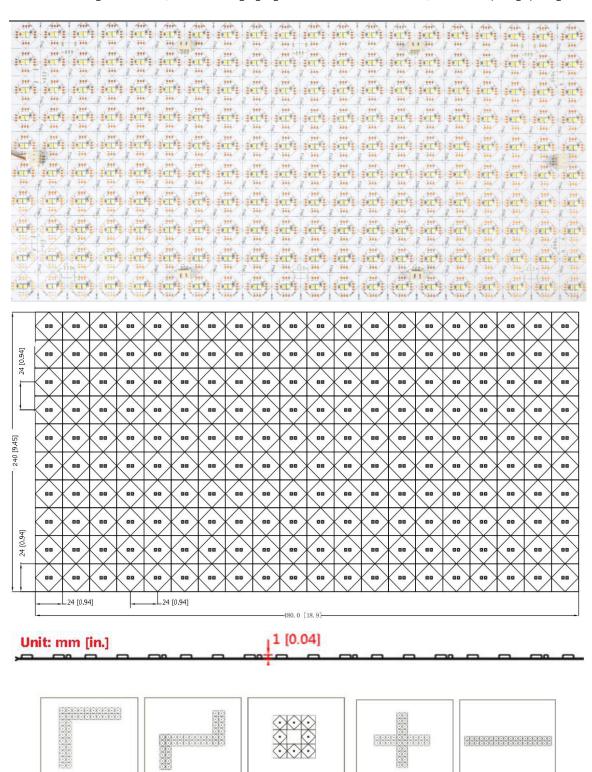
"S"shaped run

CCT 2700~6500°K

LL-MAT-480X240-CCT



- Plus Series using top quality material such as Epistar/San'an chip, Intermatix phosphor powder, ShinEtsu & Dow Corning glue, Heraeus 99.99% pure golden wire, pure copper & fresh plastic stand etc. as standard configuration.
- Sign Backlight Series in light sheet appearance, allows flexible cutting (by 2 LEDs) and on-site board-to-board/board-to-power split joint (by on-board XH female connector or cable soldering) into multiple shapes, such as linear, square, rectangle, donut, L, T, S, + etc., along with the solid and dotted line, applying at advertising word, signboard light box or abnormity mount scene.
- For curvy, space-sensitive backlighting solutions requiring the thinnest of lighting solutions. Light sheet is great for backlighting projects where a lighting solution that is both thin and bendable may be needed to fit into soft, curving surfaces and spaces.
- Exclusive for backlight of showcase, billboard and signage light box in small size and thin width, also used for photographic light.



Donut-shaped run

Straight run

Cross-shaped run



Part. No.	Dimension (L*W*H)	IP Rating	Lumen Flux(all) ± 10% @CRI80&4000K&20W	Light Eff. @CRI80&4000K&20W	Lumen Flux(all) $\pm 10\%$ @CRI90&4000K&20W
GL-24-FG81N-A [GL-N2835XX-24-CV-084-FG81]	480*240*1mm [19*9.5*0.04in.]	IP20 [dry]	2330lm/sheet, 12lm/unit piece 20230lm/m² [1860lm/ft².]	116lm/W	1980lm/sheet, 9.8lm/unit piece 17190lm/m² [1590lm/ft².]
GL-24-FG81L-B [GL-L2835XX-24-CV-084-FG81]	480*240*1.5mm [19*9.5*0.06in.]	IP54 Thin [damp]	2330*95%lm/sheet, 12*95%lm/unit piece 20230*95%lm/m² [1860*95%lm/ft².]	116*95%lm/W	1980*95%lm/sheet, 9.8*95%lm/unit piece 17190*95%lm/m² [1590*95%lm/ft².]

Part. No.	Dimension (L*W*H)	IP Rating	Lumen Flux(all) ± 10% @CRI80&4000K&40W	Light Eff. @CRI80&4000K&40W	Lumen Flux(all) ± 10% @CRI90&4000K&40W
GL-24-FG81N-A	480*240*1mm	IP20	4500*95%lm/sheet, 23*95%lm/unit piece	113lm/W	3830lm/sheet, 19lm/unit piece
[GL-N2835XX-24-CV-084-FG81]	[19*9.5*0.04in.]	[dry]	$39150*95\% lm/m^2 [2880*95\% lm/ft^2.]$	- ,	332800lm/m ² [3060lm/ft ² .]
GL-24-FG81L-B	480*240*1.5mm	IP54 Thin	4500*95%lm/sheet, 23lm/unit piece	113*95%lm/W	3830*95%lm/sheet, 19*95%lm/unit piece
[GL-L2835XX-24-CV-084-FG81]	[19*9.5*0.06in.]	[damp]			33280*95%lm/m ² [3060*95%lm/ft ² .]

Part. No.	Dimension (L*W*H)	IP Rating	Lumen Flux(all) $\pm10\%$ @CRI80&4000K&60W	Light Eff. @CRI80&4000K&60W	Lumen Flux(all)±10% @CRI90&4000K&60W
GL-24-FG81N-A [GL-N2835XX-24-CV-084-FG81]	480*240*1mm [19*9.5*0.04in.]	IP20 [dry]	6600lm/sheet, 33lm/unit piece 57430 lm/m² [5280lm/ft².]	110lm/W	5610lm/sheet, 28lm/unit piece 33280lm/m² [4490lm/ft².]
GL-24-FG81L-B [GL-L2835XX-24-CV-084-FG81]	480*240*1.5mm [19*9.5*0.06in.]	IP54 Thin [damp]	6600*95%lm/sheet, 33*95%lm/unit piece 57430*95%lm/m² [5280*95%lm/ft².]	110*95%lm/W	5610*95%lm/sheet, 28*95%lm/unit piece 33280*95%lm/m² [4490*95%lm/ft².]

Part. No.	Dimension (L*W*H)	IP Rating	Lumen Flux(all) ± 10% @CRI80&4000K&90W	Light Eff. @CRI80&4000K&90W	Lumen Flux(all) ± 10% @CRI90&4000K&90W
GL-24-FG81N-A	480*240*1mm	IP20	9450lm/sheet, 47lm/unit piece	105lm/W	8040lm/sheet, 40lm/unit piece
[GL-N2835XX-24-CV-084-FG81]	[19*9.5*0.04in.]	[dry]	82210lm/m ² [7560lm/ft ² .]		69890lm/m ² [6430lm/ft ² .]
GL-24-FG81L-B	480*240*1.5mm	IP54 Thin	9450*95%lm/sheet, 47*95%lm/unit piece	105*95%lm/W	8040*95%lm/sheet, 40*95%lm/unit piece
[GL-L2835XX-24-CV-084-FG81]	[19*9.5*0.06in.]	[damp]	82210*95%lm/m² [7560*95%lm/ft².]		69890*95%lm/m² [6430*95%lm/ft².]

GENERAL PARAMETERS		PHOTOELECTRIC PARAMETERS		
Dimension	Sheet: L480*W240mm [L19*W9.5in.] Unit Piece: L24*W24mm [L0.9*0.9in.] Total Height With On-Board XH Female Connector: 8mm [0.31in.]	Power±10%	Sheet: 20W, 40W, 60W, 90W, Unit Piece: 0.1W, 0.2W, 0.3W, 0.45W 174W/m² [16W/ft²], 348W/m² [32W/ft²], 522W/m² [48W/ft²], 783W/m² [72W/ft²] (Equated to 3.4W/M[1W/ft.], 6.8W/M[2W/ft.], 10W/M[3W/ft.], 14W/M[4W/ft.] base on Min. cutting row)	
Rated Current/Voltage	Sheet: 10A/240W, On-Board XH Female Connector: 3A/36V/suitable for AWG22 cable	Max. Load Sheet QTY	11pcs@20W, 5pcs@40W, 3pcs@60W, 2pcs@90W (for 240W) / 4pcs@20W, 2pcs@40W, 1pcs@60W, 1pcs@90W (for 100W)	
LED Pitch	24*24mm [0.9*0.9in.]	Input Voltage	24VDC	
LED Type	SMD2835 white CCT	LED Current	2mA/LED, 4.2mA/LED, 6.3mA/LED, 9.4mA/LED	
LED QTY	Sheet: 40(Row)*10(Column)=400pcs, Unit Piece: 2pcs, (Equated to 84LED/M[26LED/ft.] base on Min. cutting row)	LED CCT & Wavelength	2700-6500K CCT-Tunable	
PCB Type	2oz white FPC, OSP	SDCM	ErP & ANSI Norm, 3 step	
Operating Ambient	Ta: -20~45℃	CRI	Ra≥80 & 90	
Warranty	5 years	Beam Angle	120°	
Lifespan	50kh (L70B50@Tc<65℃, Tc is temperature of LED pin)	Dimming Method	PWM (dimmable driver like RF, Bluetooth, 0/1-10V, Triac, DALI, DMX, WIFI etc.)	
Certification	CE, UL, RoHS	Zgoulou		

Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.

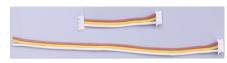
Note 2: Applying with extra heat sink is not necessary with self-cooling capacity

 $\label{eq:section} \textbf{Note 3: 3M 300LSE yellow adhesive tape attached on backside, is standard configuration of Plus Series.}$

Note 4: (1) With XH connector: Split joint of sheet-to-sheet or sheet-to-power supply in soldering-free, using 6pcs on-board XH 3-pins female connectors (2pcs on each long side and 1pc on each short side), L=300mm[11.8in.] AWG22 brown/yellow/white power cable with male plug in one end, and L=50mm[1.97in.] AWG22 brown/yellow/white extension cable with male plug in two ends.

(2) Without connector: Split joint of sheet-to-sheet or sheet-to-power supply by soldering process.





Note 5: Transparent ESD bag, is standard configuration of Plus Series.

Note 6: 3M tape on backside is a standard configuration for installation, applying to any flat or curved mounting surface. Staple gun or nails can also be applied for further secure, through the diagram of circular screw hole.

Note 7: Flexible cut to be desired shape following any solid lines in the direction of horizontal and vertical.

Note 8: In order to get uniform area light without light-spot, the distance between light sheet and sign is ≥36mm[1.42in.], means 1.5 times of LED pitch. (Measured with a milky PC sheet in 2mm thickness and 50% light transmittance).

Note 9: To ensure the proper illumination for any customized shape by the processing of cutting and split joint, the outline of route with single strip only in any position, must be kept as a complete quadrilateral shape without any notch.

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